59. (Amended) A host cell containing heterologous nucleic acid according to any one of claims 49 to 54, wherein said cell is a plant cell or a bacterial cell.

Cancel claim 60 without prejudice.

REMARKS

Reconsideration of this application and entry of the foregoing amendments are respectfully requested.

Claim 59 has been amended to define the invention with additional clarity. Claim 60 has been cancelled.

The Examiner has requested that Applicants indicate which portions of the Remarks of the December 19, 2002

Amendment apply to the rejection under 35 USC 112, first paragraph, based on an alleged lack of written description and which portions apply to the rejection under 35 USC 112, first paragraph, based on an alleged lack of enablement.

As aspects of both of these rejections raised similar points regarding the claim scope, the arguments provided previously were intended to address the root cause of the rejections and were, therefore, relevant to both written description and enablement. The comments provided below explain how the prior arguments relate to both the enablement— and the written description—based rejections.

Part of both the rejections arose from the hybridization language of claims 52-54. The claims were amended to remove "strongly" and to specify hybridization to the complementary sequence. Thus, both the written description-based rejection and the enablement-based rejections are believed moot insofar as they related to the hybridization language.

The quotation on page 19, second paragraph, of the December 19, 2002 Amendment is from the written description rejection in paragraph 7 of the Office Action. It was explained in the third paragraph on page 19 of the December 19, 2002 Amendment, that, in response to that rejection, the claims were amended to require the presence of the 17 amino acid sequence that Applicants demonstrated is required for function.

The Examiner contended both in paragraphs 7 and 8 of the Office Action that the specification does not describe how to change SEQ ID NO:2 without affecting its functional activity. However, as pointed out on page 20 of the December 19, 2002 Amendment, the sequences claimed are a narrow group sharing a close relationship with SEQ ID NO:2.

As pointed out in the second full paragraph on page 20 of the December 19, 2002 Amendment, the claims define a narrow genus by sequence, structure and function that

Applicants were in possession of when the application was filed, as reflected by the subject disclosure. Various alleles and mutants are described and discussed. Homologous sequences have been found in various species, including Zea Mays (maize), O. Sativa (rice), and Brassica napus (rape). The written description requirement should therefore be satisfied.

Regarding enablement, the December 19, 2002 Amendment went on to state that the disclosure is fully enabling, given the sequence, structure and function elements in the claims. The skilled person would know how to mutate a given sequence and obtain variants. Thus, based on the disclosure, sequences falling within the claims are readily obtainable. Further, the disclosure guides the skilled person in obtaining a functional sequence because a functional GA-responsive domain is identified in the specification.

Because of the routine nature of the modifications necessary for obtaining similar functional sequences, Applicants should be entitled to claims reciting sequences sharing a certain % identity with SEQ ID NO:2. To require further limitation would be to unduly restrict Applicants in the scope of protection to which they are rightfully entitled. Furthermore, as pointed out in the December 19,

2002 Amendment on page 21, 90 % sequence identity is a relatively narrow limitation in the present claims compared with many granted patents having comparable disclosures.

The first full paragraph of the December 19, 2002

Amendment on page 21 specifically addresses the written description rejection on page 10 of the Office Action, wherein the Examiner referred to Fiers.

As regards claims 59 and 69, claim 59 has now been amended to indicate that the host cell is a plant cell or a bacterial cell, as suggested by the Examiner (claim 60 has been cancelled).

The rejection of claim 69 is not believed to be well founded. The Markush group in the claim is enabled because the skilled person can use the invention to influence plant growth without significantly affecting flowering time. Therefore, it would be an unduly limiting to require restriction in the manner suggested by the Examiner.

Submitted herewith are two documents supporting the fact that plant growth characteristics can be influenced without a significant change in reproductive development.

1. Evaluation of the Arabidopsis GAI/gai gene(s) in transgenic maize (abstract).

This abstract is from a poster presented to the 10th International Plant Tissue Culture and Biotechnology Congress in 2002.

The authors introduced the GAI gene into maize.

Various characteristics of plant growth were seen to be influenced in the transgenic maize, e.g. shorter plants, shorter leaves and thicker stems. In these plants, there was no significant change in reproductive development (ear shoot development and flowering time) as measured by the relevant traits (days to 50 % pollen shed, anthesis-silking interval and total leaf number).

2. Expression of Arabidopsis GAI in transgenic rice (The Plant Cell, August 2001)

In this paper, three of the present Applicants report the expression of GAI in transgenic rice. High-level expression of the GAI gene caused dwarfism and reduced response to gibberellin, and the degree of the effect was correlated with the level of GAI expression. The paper does not report any other strong phenotype in transgenic rice. Thus, plant growth characteristics were influenced without apparently influencing flowering time.

These publications demonstrate that expression of GAI in a transgenic plant need not repress plant growth and delay flowering. They show that it is possible for GAI gene expression to influence a number of plant growth characteristics without necessarily influencing flowering time.

In considering the above, the Examiner is urged to bear in mind the scope of the claims of USP 6,307,126.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version With Markings To Show Changes Made."

This application is submitted to be in condition for allowance and a Notice to that effect is requested.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

59. (Amended) A host cell containing heterologous nucleic acid according to any one of claims 49 to 54, wherein said cell is a plant cell or a bacterial cell.